FORT BELKNAP INDIAN COMMUNITY
APPENDIX A
Water Quality Criteria for Human Health
REVISION – FEBRUARY 13, 2020

A-1: Numeric Criteria for Human Health

Pollutant (P = Priority Pollutant)	CAS Number	Human Health for the consumption of Water + Organism (µg/L)	Human Health for the consumption of Organism Only (µg/L)	Publication Year	Organoleptic Effect Criteria (µg/L)	Notes
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0234"] **(P)**	**83329**	**70**	**90**	**2015**	**20**	
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0211"] **(P)**	**107028**	**3**	**400**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0162"] **(P)**	**107131**	**0.061**	**7.0**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0163"] **(P)**	**309002**	**0.00000077**	**0.00000077**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

Commented [MH1]: I've highlighted my changes in yellow from this point forward. I'll remove the highlighted areas after they have been approved by you.

RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0164"] **(P)**	**319846**	**0.00036**	**0.00039**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0235"] **(P)**	**959988**	**20**	**30**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0236"] **(P)**	**120127**	**300**	**400**	**2015**		
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**7440360**	**5.6**	**640**	**1980**		**This criterion was revised to reflect EPA's q1* or RfD as contained in the** [HYPERLINK "https://www.epa.gov/iris"] **as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC2]:** MCL is 6.0 µg/L
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**7440382**	**0.018**	**0.14**	**1992**		**This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving**

						the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right). **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This recommended water quality criterion for arsenic refers to the inorganic form only.**
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**1332214**	**7 million fibers/L**	**—**	**1991**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK "https://www.epa.gov/wqc/quality-criteria-old-book"]	**7440393**	**1,000**	**—**	**1986**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This human health criterion is the same as originally published in the** [HYPERLINK "https://www.epa.gov/wqc/quality-criteria-water-red-book"] **which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is published in the** [HYPERLINK "https://www.epa.gov/wqc/quality-criteria-

Commented [WQC3]: MCL is 10 µg/L

Commented [WQC4]: MCL is 7 MFL

Commented [WQC5]: MCL is 2,000 µg/L

						water-gold-book"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0165"] **(P)**	**71432**	**0.58-2.1 (1.34)**	**16-58 (37)**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10^{-6} risk. Alter risk levels may be obtained by m the decimal point (e.g., for a risk 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0166"] **(P)**	**92875**	**0.00014**	**0.011**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0176"] **(P)**	**56553**	**0.0012**	**0.0013**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK	**50328**	**0.00012**	**0.00013**	**2015**		**This criterion is based on**

Commented [WQC7]: MCL is 5 µg/L

Commented [WQC6]: I like the idea of a Range for both, but if I had to determine an actual number, maybe the middle number for both, would that work?

www.regulations.gov/document?D=EPA-HQ-OW-35-0177"] **(P)**						**carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC8]:** MCL is 0.2 µg/L
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0178"] **(P)**	**205992**	**0.0012**	**0.0013**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0179"] **(P)**	**207089**	**0.012**	**0.013**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK "https://www.epa.gov/wqc/ambient-water-criteria-beryllium"] **(P)**	**7440417**	**4[b]**	**—**	**—**		
RLINK	**319857**	**0.0080**	**0.014**	**2015**		**This criterion is based on**

www.regulations.gov/document?D=EPA-HQ-OW-35-0167"] **(P)**						**carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0237"] **(P)**	**33213659**	**20**	**40**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0212"] **(P)**	**108601**	**200**	**4,000**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0180"] **(P)**	**111444**	**0.030**	**2.2**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0168"] **(P)**	**117817**	**0.32**	**0.37**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of**

Commented [WQC9]: Listed as Di(2-ethylhexyl)phthalate. MCL is 6 µg/L

						10^{-5}, move the decimal point in the recommended criterion one place to the right).
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0181"]	**542881**	**0.00015**	**0.017**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0192"] **(P)**	**75252**	**7.0**	**120**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0213"] **(P)**	**85687**	**0.10**	**0.10**	**2015**		**This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).**

Commented [WQC10]: MCL is 80 µg/L

RLINK "https://www.epa.gov/wqc/ambient-water-criteria-cadmium"] **(P)**	**7440439**	**5[b]**	**—**	**—**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0182"] **(P)**	**56235**	**0.4**	**5**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0183"] **(P)**	**57749**	**0.00031**	**0.00032**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0214"] **(P)**	**108907**	**100**	**800**	**2015**	**NO CRITERIA**	**The criterion for organoleptic (taste and odor) effects may be more stringent. See** [HYPERLINK "https://www.epa.gov/wqc/national-

Commented [WQC11]: MCL is 5.0 µg/L

Commented [WQC12]: MCL is 2.0 µg/L.

						recommended-water-quality-criteria-organoleptic-effects"]. **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0193"] **(P)**	**124481**	**0.80**	**21**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0215"] **(P)**	**67663**	**60**	**2,000**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0238"]	**94757**	**70[a]**	**12,000**	**2015**		
RLINK	**93721**	**50[a]**	**400**	**2015**		

Commented [WQC13]: MCL is 100 µg/L

Commented [WQC14]: Listed as Dibromochloromethane. MCL is 80 µg/L and MCLG is 60 µg/L

Commented [WQC15]: MCL is 80 and MCLG is 70

Commented [WQC16]: Listed as 2,4-D (2,4-dichlorophenoxyacetic acid). MCL and MCLG is 70

Commented [WQC17]: Listed as 2,4,5-TP (Silvex). MCL and MCLG is 50

www.regulations.gov/document?D=EPA-HQ-OW-35-0216"]						
RLINK "https://www.epa.gov/wqc/ambient-water-criteria-chromium"] **(P)**	**16065831**	**100[b]**	**—**	**—**		
RLINK "https://www.epa.gov/wqc/ambient-water-criteria-chromium"] **(P)**	**18540299**	**100[b]**	**—**	**—**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0184"] **(P)**	**218019**	**0.12**	**0.13**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right). EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC18]:** Has no MCL
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**7440508**	**1,300**	**—**	**1992**	**1000**	**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right). EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK

						"https://www.epa.gov/dwstandardsregulations"]. Commented [WQC19]: Copper action level 1.3 mg/L, Treatment Technique (TT)
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0239"] **(P)**	**57125**	**4**	**400**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC20]: CAS # is 143-33-9 with an MCL and MCLG of 200
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0185"] **(P)**	**53703**	**0.00012**	**0.00013**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0195"] **(P)**	**75274**	**0.95**	**27**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC21]: Listed as Bromodichloromethane (THM). MCL is 80
RLINK www.regulations.gov/document?D=EPA-HQ-OW-	**60571**	**0.0000012**	**0.0000012**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate**

35-0171"] **(P)**						**risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0240"] **(P)**	**84662**	**600**	**600**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0241"] **(P)**	**131113**	**2,000**	**2,000**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0242"] **(P)**	**84742**	**20**	**30**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0217"]	**25550587**	**10**	**1,000**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0243"] **(P)**	**1031078**	**20**	**40**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0218"] **(P)**	**72208**	**0.03**	**0.03**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"],

Commented [WQC22]: MCL is 2.0

RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0219"] **(P)**	**7421934**	**1**	**1**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0244"] **(P)**	**100414**	**68**	**130**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0220"] **(P)**	**206440**	**20**	**20**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0221"] **(P)**	**86737**	**50**	**70**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0222"] **(P)**	**58899**	**0.2[a]**	**4.4**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0196"] **(P)**	**76448**	**0.0000059**	**0.0000059**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

Commented [WQC23]: MCL and MCLG is 700

Commented [WQC24]: Listed as Lindane. MCL and MCLG 0.2

						EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC25]:** MCL is 0.4
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0197"] **(P)**	**1024573**	**0.000032**	**0.000032**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC26]:** MCL is 0.2
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0198"] **(P)**	**118741**	**0.000079**	**0.000079**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC27]:** MCL is 1.0
RLINK	**87683**	**0.01**	**0.01**	**2015**		**This criterion is based on**

www.regulations.gov/document?D=EPA-HQ-OW-35-0199"] **(P)**						**carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0172"]	**608731**	**0.0066**	**0.010**	**2015**		**This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0245"] **(P)**	**77474**	**4**	**4**	**2015**	**1**	**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC28]: MCL is 50
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0186"] **(P)**	**67721**	**0.1**	**0.1**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0187"] **(P)**	**193395**	**0.0012**	**0.0013**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving**

						the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).
	7439896	**-**	**-**	**-**	**300**	
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0188"] **(P)**	**78591**	**34**	**1,800**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK "https://www.epa.gov/wqc/drinking-water-document-manganese"]	**7439965**	**50**	**100**	**1993**	**Criteria?**	**The Human Health for the consumption of Water + Organism criterion for manganese is not based on toxic effects, but rather is intended to minimiz** Commented [WQC29]: Is there criteria for this? **objectionable qualities such as laundry stains and objectionable tastes in beverages.**
RLINK "https://www.epa.gov/wqc/human-health-methylmercury"] **(P)**	**22967926**	**—**	**0.3 mg/kg**	**2001**		**This fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 0.0175 kg/day.**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0223"]	**72435**	**0.02**	**0.02**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"

						]. Commented [WQC30]: MCL is 40
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0224"] **(P)**	**74839**	**100**	**10,000**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0200"] **(P)**	**75092**	**5[a]**	**1,000**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC31]: Listed as Dichloromethane. MCL is 5.0
hlorobenzene	**108907**	-	-	-	**20**	
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**7440020**	**610**	**4,600**	**1998**		**This criterion was revised to reflect EPA's q1* or RfD as contained in the**[HYPERLINK "https://www.epa.gov/iris"] **as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.**
RLINK "https://www.epa.gov/wqc/quality-criteria-old-book"]	**14797558**	**10,000**	**—**	**1986**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may**

						be more stringent. See [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC32]: MCL and MCLG is 10,000
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0246"] **(P)**	**98953**	**10**	**600**	**2015**	**30**	
RLINK "https://www.epa.gov/wqc/ambient-water-criteria-nitrosamines"]	**—**	**0.0008**	**1.24**	**1980**		**This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).**
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"]	**924163**	**0.0063**	**0.22**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"]	**55185**	**0.0008**	**1.24**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

RLINK www.epa.gov/sites/production/files/2018- ments/hh-criteria-calculation-matrix-2002.pdf"]	**930552**	**0.016**	**34**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.epa.gov/sites/production/files/2018- ments/hh-criteria-calculation-matrix-2002.pdf"	**62759**	**0.00069**	**3.0**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
sodi-n-Propylamine (P)	**621647**	**0.0050**	**0.51**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
sodiphenylamine (P)	**86306**	**3.3**	**6.0**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

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RLINK "https://www.epa.gov/wqc/recreational-uality-criteria-and-methods"]	—	—	—	2012		**See EPA's** [HYPERLINK "https://www.epa.gov/wqc/recreationa quality-criteria-and-methods"]
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0225"]	608935	0.1	0.1	2015		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0201"] **(P)**	87865	0.03	0.04	2015	30	**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
	—	5 – 9	—	1986		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0247"] **(P)**	108952	4,000	300,000	2015	300	
lorinated Biphenyls (PCBs) (P)	1336363	0.000064	0.000064	2002		**This criterion is based on carcinogenicity of 10^{-6} risk. Alterr risk levels may be obtained by m the decimal point (e.g., for a risk**

Commented [WQC33]: Remove this? Since E.coli criteria is included in the TWQS document for Recreational Uses. We would like to use Recommendation 1, which is 126 GM and 410 STV. I can change the E.coli info to this and include the cyanotoxin criteria as well OR do you think a table of both E.coli and Cyanotoxin be included following this table? (I've included a sample table if so)

Commented [WQC34]: MCL is 1.0

Commented [WQC35]: There was no CAS # initially, so added it from the 2018 Edition of the Drinking Water Standards and Health Advisories Tables

						10^{-5}, move the decimal point in the recommended criterion one place to the right). **This criterion applies to total PCBs (e.g., the sum of all congener or all isomer or homolog or Aroclor analyses).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. Commented [WQC36]: MCL is 5.0
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0248"] **(P)**	**129000**	**20**	**30**	**2015**		
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**7782492**	**50[a]**	**4200**	**2002**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLI Commented [WQC37]: MCL and MCLG is 50 "https://www.epa.gov/dwstandardsregulations"].
RLINK "https://www.epa.gov/wqc/quality-criteria-old-book"]	**—**	**250,000**	**—**	**1986**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0189"] **(P)**	**127184**	**5[a]**	**29**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk l Commented [WQC38]: MCL is 5.0 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

						EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.federalregister.gov/documents/2003/12/31/03-ational-recommended-water-quality-criteria-for-ection-of-human-health"] **(P)**	**7440280**	**0.24**	**0.47**	**2003**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0226"] **(P)**	**108883**	**57**	**520**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC39]:** MCL is 1,000
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0202"] **(P)**	**8001352**	**0.00070**	**0.00071**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC40]:** MCL is 3.0
RLINK www.regulations.gov/document?D=EPA-HQ-OW-	**79016**	**0.6**	**7**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate**

35-0173"] **(P)**						**risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0174"] **(P)**	**75014**	**0.022**	**1.6**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
)	**7440666**	**7,400**	**26,000**	**2002**	**5000**	
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**71556**	**200[a]**	**200,000**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].

Commented [WQC41]: MCL is 5.0

Commented [WQC42]: MCL is 2.0

Commented [WQC43]: MCL is 200

RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0175"] **(P)**	**79345**	**0.2**	**3**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0156"] **(P)**	**79005**	**0.55**	**8.9**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right). EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0204"] **(P)**	**75354**	**7[a]**	**20,000**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLI "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0227"]	**95943**	**0.03**	**0.03**	**2015**		
RLINK	**120821**	**0.071**	**0.076**	**2015**		**EPA has issued a Maximum Contaminant**

Commented [WQC44]: MCL is 5 and MCLG is 3

Commented [WQC45]: MCL and MCLG is 7.0

www.regulations.gov/document?D=EPA-HQ-OW-35-0205"] **(P)**						**Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **This criterion is based on carcinogenicity of 10-6 risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10-5, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0206"] **(P)**	**95501**	**600[a]**	**3,000**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLI "https://www.epa.gov/dwstandardsreg].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0190"] **(P)**	**107062**	**5[a]**	**650**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right). EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-	**78875**	**0.90**	**31**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate**

Commented [WQC46]: MCL is 70

Commented [WQC48]: MCL is 600

Commented [WQC47]: Listed as Dichlorobenzene o-

Commented [WQC49]: MCL is 5.0

35-0157"] **(P)**						**risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC50]:** MCL is 5.0
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0158"] **(P)**	**122667**	**0.03**	**0.2**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0249"] **(P)**	**156605**	**100**	**4,000**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"]. **Commented [WQC51]:** MCL is 100
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0207"] **(P)**	**541731**	**7**	**10**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0191"] **(P)**	**542756**	**0.27**	**12**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving**

						the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0208"] **(P)**	**106467**	**75[a]**	**900**	**2015**		**EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLI "https://www.epa.gov/dwstandardsreg].
RLINK www.epa.gov/sites/production/files/2018-ments/hh-criteria-calculation-matrix-2002.pdf"	**1746016**	**5.0E-9**	**5.1E-9**	**2002**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).** **EPA has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See** [HYPERLINK "https://www.epa.gov/dwstandardsregulations"].
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0228"]	**95954**	**300**	**600**	**2015**	**1**	
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0159"] **(P)**	**88062**	**1.5**	**2.8**	**2015**	**2**	**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of**

Commented [WQC53]: MCL and MCLG is 75

Commented [WQC52]: Listed as Dichlorobenzene p-

						10^{-5}, move the decimal point in the recommended criterion one place to the right).
hlorophenol	-	-	-	-	**0.04**	
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**120832**	**10**	**60**	**2015**	**0.3**	
hlorophenol	-	-	-	-	**0.5**	
hlorophenol	-	-	-	-	**0.2**	
hlorophenol	-	-	-	-	**0.3**	
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**105679**	**100**	**3,000**	**2015**	**400**	
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**51285**	**10**	**300**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0160"] **(P)**	**121142**	**0.049**	**1.7**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0209"] **(P)**	**91587**	**800**	**1,000**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0210"] **(P)**	**95578**	**30**	**800**	**2015**	**0.1**	
rophenol	-	-	-	-	**0.1**	
rophenol	**106489**	-	-	-	**0.1**	
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**534521**	**2**	**30**	**2015**		
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0161"] **(P)**	**91941**	**0.049**	**0.15**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK "https://www.epa.gov/wqc/update-human-inal-documents"] **(P)**	**59507**	**500**	**2,000**	**2015**	**3000**	
yl-4-Chlorophenol	—	-	-	-	**1800**	
yl-6-Chlorophenol	-	-	-	-	**20**	

-Tetrachlorophenol	**—**	**-**	**-**	**-**	**1**	
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0169"] **(P)**	**72548**	**0.00012**	**0.00012**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0194"] **(P)**	**72559**	**0.000018**	**0.000018**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**
RLINK www.regulations.gov/document?D=EPA-HQ-OW-35-0170"] **(P)**	**50293**	**0.000030**	**0.000030**	**2015**		**This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).**

[a] The Maximum Contaminant Level (MCL is more stringent and replaced the initial Water + Organism criteria.
[b] The Maximum Contaminant Level (MCL).

The **Human Health Criteria Calculation Matrix** can be found at: [HYPERLINK "https://www.epa.gov/wqc/2002-national-recommended-human-health-criteria"]

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The **Human Health Water Quality Criteria and Methods for Toxics** can be found at:
Fact Sheet: Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health - Revised Methodology (2000)